



Complete Summary

TITLE

Heart failure: percentage of patients with diagnosed heart failure (HF) aged greater than or equal to 18 years for whom initial laboratory testing was performed.

SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement. Clinical performance measures: heart failure. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2005. 8 p. [9 references]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients with diagnosed heart failure (HF) aged greater than or equal to 18 years for whom initial laboratory testing was performed.

This measure is intended for use only in quality improvement activities with prospective data collection.

RATIONALE

According to American College of Cardiology/American Heart Association (ACC/AHA) guidelines, evaluation of patients with heart failure (HF) includes initial measurement of the following: complete blood count, urinalysis, serum

electrolytes (including calcium and magnesium), blood urea nitrogen, serum creatinine, blood glucose, liver function tests, thyroid-stimulating hormone.

PRIMARY CLINICAL COMPONENT

Heart failure (HF); laboratory tests (complete blood count, urinalysis, serum electrolytes [including calcium and magnesium], blood urea nitrogen, serum creatinine, blood glucose, liver function tests, thyroid-stimulating hormone)

DENOMINATOR DESCRIPTION

All patients aged greater than or equal to 18 years with diagnosed heart failure (HF)

NUMERATOR DESCRIPTION

Patients in the denominator for whom initial laboratory testing was performed (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

Gheorghiade M, Gattis WA, O'Connor CM. Treatment gaps in the pharmacologic management of heart failure. Rev Cardiovasc Med 2002;3(Suppl 3):S11-9. [27 references] [PubMed](#)

Jencks SF, Huff ED, Cuerdon T. Change in the quality of care delivered to Medicare beneficiaries, 1998-1999 to 2000-2001. JAMA 2003 Jan 15;289(3):305-12. [PubMed](#)

Lloyd-Jones DM, Larson MG, Leip EP, Beiser A, D'Agostino RB, Kannel WB, Murabito JM, Vasan RS, Benjamin EJ, Levy D. Lifetime risk for developing congestive heart failure: the Framingham Heart Study. *Circulation* 2002 Dec 10; 106(24): 3068-72. [PubMed](#)

State of Use of the Measure

STATE OF USE

Pilot testing

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Community Health Care
Managed Care Plans
Physician Group Practices/Clinics
Rural Health Care

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses
Physician Assistants
Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

A person aged 40 years or older has a 1 in 5 chance of developing heart failure (HF). Currently, about 5 million Americans are living with HF, and about 550,000 new cases are diagnosed each year. The high prevalence combined with multiple complications from this condition increase health care costs significantly.

EVIDENCE FOR INCIDENCE/PREVALENCE

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

Lloyd-Jones DM, Larson MG, Leip EP, Beiser A, D'Agostino RB, Kannel WB, Murabito JM, Vasan RS, Benjamin EJ, Levy D. Lifetime risk for developing congestive heart failure: the Framingham Heart Study. *Circulation* 2002 Dec 10; 106(24): 3068-72. [PubMed](#)

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

From 1979 to 2000, heart failure (HF) deaths increased 148%.

About 22% of male and 46% of female heart attack victims will be disabled with HF within 6 years.

In individuals diagnosed with HF, sudden cardiac death occurs at 6 to 9 times the rate in the general population.

EVIDENCE FOR BURDEN OF ILLNESS

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

UTILIZATION

Unspecified

COSTS

In 2003, the annual direct and indirect costs of heart failure (HF) in the United States are expected to exceed \$24 billion.

EVIDENCE FOR COSTS

American Heart Association. Heart disease and stroke statistics - 2003 update. Dallas (TX): American Heart Association; 2002. 46 p.

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients aged greater than or equal to 18 years with diagnosed heart failure (HF)

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

All patients aged greater than or equal to 18 years with diagnosed heart failure (HF)

Exclusions

None

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition

DENOMINATOR TIME WINDOW

Time window follows index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Patients in the denominator for whom initial laboratory testing* was performed

*For this measure, documentation required for only the following tests: complete blood count, serum electrolytes, blood urea nitrogen, serum creatinine, blood glucose, thyroid-stimulating hormone.

Exclusions

None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Encounter or point in time

DATA SOURCE

Laboratory data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

None

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Heart failure: laboratory tests.

MEASURE COLLECTION

[The Physician Consortium for Performance Improvement Measurement Sets](#)

MEASURE SET NAME

[American College of Cardiology, American Heart Association, and Physician Consortium for Performance Improvement: Heart Failure Physician Performance Measurement Set](#)

SUBMITTER

American Medical Association on behalf of the American College of Cardiology, the American Heart Association, and the Physician Consortium for Performance Improvement

DEVELOPER

American College of Cardiology - Medical Specialty Society
American Heart Association
Physician Consortium for Performance Improvement

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2003 Oct

REVISION DATE

2005 Aug

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement. Clinical performance measures: heart failure. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2003. 8 p.

SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement. Clinical performance measures: heart failure. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2005. 8 p. [9 references]

MEASURE AVAILABILITY

The individual measure, "Heart Failure: Laboratory Tests," is published in the "Clinical Performance Measures: Heart Failure." This document is available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

COMPANION DOCUMENTS

The following are available:

- Physician Consortium for Performance Improvement. Introduction to physician performance measurement sets. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2001 Oct. 21 p. This document is available from the American Medical Association (AMA) Clinical Quality Improvement Web site: www.ama-assn.org/go/quality.
- Physician Consortium for Performance Improvement. Principles for performance measurement in health care. A consensus statement. [online]. Chicago (IL): American Medical Association (AMA), Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), National Committee for Quality Assurance (NCQA); [3 p]. This document is available from the AMA Clinical Quality Improvement Web site: www.ama-assn.org/go/quality.
- Physician Consortium for Performance Improvement. Desirable attributes of performance measures. A consensus statement. [online]. American Medical Association (AMA), Joint Commission on Accreditation of Healthcare Organizations (JCAHO), National Committee for Quality Assurance (NCQA); 1999 Apr 19 [cited 2002 Jun 19]. [5 p]. This document is available from the AMA Clinical Quality Improvement Web site: www.ama-assn.org/go/quality.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI on March 3, 2004. The information was verified by the measure developer on October 29, 2004. This NQMC summary was updated by ECRI on September 28, 2005.

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